

**XXXII.—Noctuid Moths from some of the
Mountains of Sarawak.** By Miss A. E.
PROUT.

(With two Plates.)

PART II.

INTRODUCTION.

In publishing the second and last instalment of the catalogue of Noctuidae contained in the Mjöberg collections from the mountains of Sarawak, we desire to acknowledge gratefully our indebtedness to Mr. W. H. T. Tams for his kind assistance in the slow and arduous task of comparing specimens with the National Collection and for suggestions offered and information freely given.

This paper contains ten species in the earlier subfamilies, which were not fully worked out when the first paper went to press or which have since come to hand. Of these ten species, seven are described as new, two are too poor for description and one is left under an old name, though it may well be racially distinct.

The *Hypeninae*, which form well over one-third of the entire collection of Noctuidae, are extremely interesting, more than half being apparently new to science. Out of forty-four species listed here twenty-two are described as new and three others are in all likelihood new, though too poor to be described. Of the twenty-nine types hereafter described sixteen belong to the Mt. Murud collection; nine are from Mt. Poi; one is from Mt. Dulit and one holotype and two allotypes are from Mt. Penrissen. The remaining two types are specimens in the Joicey collection from other sources, which were selected as representing the species much better than the specimens received in the Mjöberg collections. There will also be found, in the Supplement, four new species from Mt. Matang: two *Acontianae*, one *Ophiderid*, one *Hypenid*.

ERASTRIANAE.

68. STENOLOBA ROBUSTA sp. n.

♀ 27 mm.

Coloration of head, body and fore wing somewhat as in *ferrimacula*, (*Erastria ferrimacula* Hmps., Journ. Bom. Soc., xvii, p. 472, 1906, Khasias), but the pale areas of fore wing purer white. Markings of fore wing a good deal as in *ferrimacula*, but the orbicular less distinct; the double dark costal streaks at origin of ante- and postmedial lines weaker; the reniform more strongly dark outlined, more constricted at middle; postmedial more broadly excurved round disc, minutely dentate, with conspicuous white discal streak on posterior fourth; *robusta* has a strong citrine green suffusion (Ridgway, pl. iv), mixed with blackish, from base to antemedial line and to middle of costa in type, to middle of costa and (broadly) round about the oblique antemedial in paratype; there is also a very dark green diamond-shaped subapical spot in both specimens. *Hind wing* whitish, with slight discal lunule placed on a very weak medial line, and slight fuscous terminal shade limited by a faintly traceable postmedial line. *Underside* of fore wing pale fuscous-brown, the costa white between medial and postmedial dark spots; the white costal spots between postmedial line and apex large and distinct; traces of a discal spot and postmedial line. *Hind wing* white, with diffused medial half-line from scarcely one-third costa; dark discal spot; waved postmedial (strongly excurved round disc) and a dark terminal shade (somewhat broken near apex).

Mt. Murud, 6500 feet, November—2 ♀.

69. STENOLOBA ELEGANS sp. n.

♂, ♀ 21--23 mm.

Somewhat similar to *S. robusta*, but more slenderly built, with the green shades much paler and more glaucous; the postmedial line intermediate between *robusta* and *ferrimacula* (minutely crenulate); the dark subapical mark reduced to a broad oblique streak; the subbasal line in *elegans* is very

distinct, outwardly oblique (though somewhat waved) from near base of costa to fold, where it is sharply angled, inwardly oblique to near base of hind margin, where it is partly concealed by a thick tuft of scales. *Hind wing* somewhat as in *robusta*, but slightly more irrorated with fuscous, scarcely darkened at termen; medial line absent; a slight discal lunule and curved postmedial line, the latter placed rather near the disc. *Underside* somewhat as in *robusta*; a little paler; hind wing without medial line or dark terminal shade, the postmedial less distinctly waved than in *robusta*, diffused and somewhat variable.

Mt. Poi, 5200 feet, 3 ♂. 1 ♀; 5000 feet, 2 ♂; 4500 feet, 1 ♀; 4350 feet, ♂ holotype.

Superficially this species somewhat nearly resembles *Chytonix elegans* Schs., A. M. N. H. (8), vii, p. 43. 1911. Costa Rica.

SARROTHRIPINÆ.

70. CHLOETHRIPA LEUCOCEPHALA sp. n.

♀ 23 mm.

Palpus with segment 3 extremely long (nearly $1\frac{1}{2}$ length of segment 2), stout but without long hair; white irrorated with fuscous. Head and thorax pure white. *Fore wing* white irrorated with green, largely suffused with citrine (on posterior fourth of median area) and olive, leaving only the anterior half of proximal fourth and a broad anterior patch from postmedial line to apex whitish; the lines pure white, the antemedial oblique from near base of costa to fold, where it is broadly rounded, bent inward to hind margin; postmedial (apparently) from little beyond $\frac{1}{3}$ costa, horizontal in anterior part of cell to beyond the small dark discal spot (which it almost touches in passing), oblique to behind M^1 , bent inward and waved to behind end of cell, bent outward to hind margin; four large white spots on costa beyond postmedial line, the last indicating the origin of subterminal line which is bent outward to SC^5 , very fine and nearly straight to fold, where it forms a broad white lunule, as in *C. chlorana*, (*Sarrothripa chlorana* Hmps., Moths Ind., iv, p. 528, 1896, Sikkim). *Hind wing* above and both wings beneath as in *chlorana*.

Mt. Murud, 4500 feet, November—1 ♀.

The striking difference in segment 3 of palpus should place this species in a separate section of *Chloethripa* from *chlorana*; but in neuration and other structural points, as well as in general facies, the two species seem to agree perfectly and I have no hesitation in referring *leucocephala* to this genus.

71. *BLENINA SUBTERMINALIS* sp. n.

♀ 38 mm.

Thorax and fore wing whitish almost entirely suffused and irrorated with vinaceous-grey (Ridgway, pl. 50) and cinnamon-brown (l.c. pl. xv), except the subterminal line; abdomen and hind wing drab, the former with a conspicuous quadrate white crest on first segment. *Fore wing* with the lines somewhat indistinct (except subterminal); ante- and postmedial blackish marked by large black spots at costa, strongly waved and excurved, the area between them with some blackish suffusion, the postmedial with a large diffused dark spot beyond it on costa; a black orbicular dot and small, somewhat oval, dark-outlined reniform; subterminal line suffused with brown at costa, then broad, outstandingly white, deeply angled inward at M^2 and somewhat deeply so in fold, minutely dentate before and behind the angles; termen very narrowly pale, with a straight dark terminal line interrupted at the veins; fringe white, chequered with brown. *Hind wing* and underside almost uniform drab, except the fringes, which are slightly chequered on hind wing, strongly so on fore wing.

Mt. Murud, 6500 feet, November—1 ♀ (slightly worn).

The fore wing in *subterminalis* is rather unusually broad, the hind wing rather small, with termen evenly rounded. In addition to crests (the second small and drab), the abdomen has some rough hair on the first two segments.

OPHIDERINAE.

PARADIOPA gen. n.

Proboscis, eye and frons normal, the frons clothed with shining silvery-white, flattened scales. Palpus with segment 1 normal; segment 2 very slightly curved at proximal end only (apparently almost correct), about $1\frac{1}{2}$ diameter of eye,

with the scaling slightly lengthened in front and at distal end behind; segment 3 about $\frac{1}{3}$ length of 2, straight, stout but practically glabrous. Thorax clothed with rather long, narrow scales, the metathorax with large, somewhat oblique crest; prothorax with smaller, somewhat more erect crest. Abdomen with crests on first three segments, large on 1 and 3 (especially so on 1). *Fore wing* rather narrow, with costa weakly curved throughout; termen obliquely rounded, crenulate; hind margin strongly down-curved (almost lobed) on proximal half; cell scarcely more than $\frac{1}{2}$ length of wing; C^1 from about $\frac{3}{5}$ cell; areole very narrow, with SC^2 , SC^3 , SC^4 , SC^5 from end, SC^5 connate or minutely stalked with SC^3 , SC^4 , which are stalked to about $\frac{1}{2}$; R^1 from angle; R^2 and M^1 from close before and behind angle; M^2 from scarcely $\frac{2}{3}$ cell; SM^2 strongly down-curved on proximal $\frac{1}{3}$. *Hind wing* moderately narrow, with the termen evenly rounded; cell nearly $\frac{1}{2}$ length of wing, with the discocellulars somewhat oblique, leaving the posterior end longer than the anterior; anastomosis to fully $\frac{1}{2}$; C rapidly diverging; SC^2 , R^1 , R^3 and M^1 from angles; R^2 weakly tubular, from just behind middle of discocellulars; M^2 from fully $\frac{3}{5}$ cell. With the exception of half one fore leg, the legs are unfortunately wanting in the type specimen.

Type: *P. parthenia* sp. n.

72. PARADIOPA PARTHENIA sp. n.

♀ 27 mm.

Frons silvery-white. Thorax above brownish drab (Ridgway pl. xlv), shaded with very deep warm sepia; abdomen drab with the crests brown, whiter beneath. *Fore wing* brownish-drab somewhat thickly irrorated with and with the lines warm sepia; subbasal represented by double, curved striae at costa and in cell; antemedial from a diffused dark spot at about $\frac{1}{4}$ costa, ill-defined and bent outward to behind M , double, oblique and waved from behind M to $\frac{1}{4}$ hind margin; a short, broad claviform, indicated by a blackish lunule at its distal end; orbicular a dark outlined greenish-white round spot; an erect, diffused medial shade from costa to cell, reappearing at M (farther distad) and oblique to middle of hind margin; reniform indistinctly

dark outlined, kidney-shaped, very near the orbicular; post-medial line lunular, double, the proximal line well-defined except at costa, from about $3/5$ costa, strongly bent outward to SC^5 , angled inward opposite the disc, somewhat angled outward on R^3 and M^1 , thence slightly incurved to hind margin; a broad, diffused subterminal shade from costa to M^2 , strongly excurved from costa to R^2 , where it is angled inward, excurved from R^2 to M^2 , followed by a fine, twice dentate greenish-white mark in fold; the interneural dark spots broad and conspicuous; fringe slightly paler than wing but darkened at the veins. *Hind wing* drab on proximal third and from before middle to termen, leaving a slight semi-hayline bar between the two dark areas, which hardly reaches to behind M^2 ; fringe white. *Underside* of both wings drab, with proximal half and veins somewhat paler; fringes as above.

Mt. Dulit, 3000 feet—1 ♀.

The single ♀ upon which this genus is erected has proved more difficult to place than any other Noctuid in these collections, and it is only after a prolonged and earnest effort to place it in some previously described genus that I have at last regretfully decided that it is necessary to erect for it a new genus.

The weakness and, especially, the position of R^2 of the hind wing suggests the possibility that *parthenia* may belong to the *Trifinae* (*Acronyctinae*); but upon closer examination R^2 appears to be weakly tubular; moreover, the palpus is too long for a normal Trifid and the cell of the fore wing is too short. This last character, although it does not appear to have been employed by any previous author, seems to me an important secondary point in distinguishing the *Trifinae* from the *Quadrifinae*, the cell averaging distinctly longer in typical *Trifinae* than in typical *Quadrifinae*. From its aspects, *P. parthenia* might well belong to the *Eutelinae*, but the frenulum is not simple; moreover, in the *Eutelinae* R^2 of the hind wing is almost always strong, from close to angle of cell. The genus appears nearest to the South American genus *Diopa*; on this account and on account of its stout build and general facies I have decided to place it provisionally in the *Ophideriinae* rather than in the *Erastrinae*, to which latter subfamily it should perhaps be referred by the subfamily

key in Cat. Lep. Phal., iv. By Sir G. Hampson's MSS key to the Ophiderinae ("Noctuinae") this genus would fall with *Diopa* Wlkr., and, were it not that the difference of region renders any close affinity extremely improbable, it might have been possible to place *parthenia* in *Diopa*; but *Diopa* the hind margin of fore wing is more normal, the areole is larger and there are a number of other minor differences which seem to justify the erection of a distinct genus in view of the strong probability that when the ♂ is known and the genitalia can be examined the resemblance between *Diopa* and *Paradiopa* will be found to be comparatively superficial.

73. MIMEUOGA species.

Mt. Murud, 6500 feet, November—1 ♀.

This specimen appears to belong to an undescribed species, but as it is a single ♀ in not quite first rate condition and is a very small, inconspicuous insect it has not seemed advisable to describe it. By structure it almost certainly belongs to the genus *Mimeuoga* Hmps. n.

74. TOLPIA species.

Mt. Murud, 6500 feet, November—1 ♀.

Like the foregoing, this may probably belong to a new species, but for similar reasons I refrain from describing it. It appears nearest to *T. argentescens* Hmps. n. (Journ. Bomb. Soc., xxi, p. 1234, 1912, Ceylon), and *plumbefusa* Hmps. n. (l.c., xvii, p. 650, 1907, Ceylon,) of one or other of which it may quite possibly be the Malayan representative.

75. VARICOSIA VENATA Hmps. n. CLAVIFERA subsp. n.

♀ 50 mm.

Differs from the typical ♀ in the larger size, the rather more kidney-shaped (more distally indented) discal spot, in the presence of a strong dark claviform spot on distal edge of antemedial line and in having the posterior fourth of fore wing paler, more contrasted with the anterior three-fourths, than in typical *venata*, (The Entom., lvii, p. 132, 1924, Ceylon); subspecies *clavifera* also differs in having the hind

wing more uniformly darkened, with a better-defined discal spot. On the underside the fore wing is more uniformly darkened than in *venata venata* and the postmedial line on hind wing is rather further removed from the termen (nearer to discal spot), at least on its posterior half.

Mt. Murud, November, without exact elevation—1 female.

76. *DIOMEA ROTUNDATA* Wlkr.

Diomea rotundata Wlkr., Spec. Lep. Ins., xiii, p. 1110, 1857, Ceylon.

Mt. Poi, 4500 feet, 1 male.

This is not a certain identification, the subterminal line on fore wing being exceptionally dentate; but in other respects it so closely resembles one specimen in Coll. Brit. Mus. from Ceylon, and there is so much individual variation in this species, unless we have two or three species mixed under the name *rotundata*, that it has seemed better not to erect a new species on the strength of a single specimen.

77. *TAMBA COSMOLOMA* sp. n.

♀ 40 mm.

Head, body, legs and wings predominantly light buff, the thorax and wings finely irrorated with pink. *Fore wing* with the costa narrowly snuff-brown (Ridgway, pl. xxix), with slight brown irroration behind it; lines (except postmedial) nearly obsolete; faint traces of the subbasal and antemedial, double, waved and excurved; cell with two minute blackish dots, one (orbicular) at nearly $\frac{2}{3}$, the other on proximal edge of a large, kidney-shaped reniform, which is very indistinctly indicated by a pale outline; postmedial line almost lost on its anterior fourth, very indistinct, double, somewhat oblique from R^1 to hind margin; an oblique purplish shade, mixed with brick-red, from termen just behind apex to postmedial line, along which it is continued almost to hind margin, giving off a proximal red lobe at its junction with line; area from this shade to termen tinged with violet and red, with only weak traces of the subterminal line; an arrow-shaped purple mark along R^2 , its (broad) head pointing towards termen; small interneural dark lunules, well removed from termen. *Hind wing* reproducing coloration and pattern of fore wing, but cell with only one black dot; postmedial line moderately distinct throughout and (rather

closely) preceded by an indistinct double medial line; subterminal fairly distinct throughout, angled inward at SC^2 and behind R^1 ; the purple shading of the border deeper than on fore wing; a red shade from near apex to behind R^1 , corresponding to the shade from near apex on fore wing; on arrow-mark on R^2 . *Underside* of both wings somewhat as above, but with less pink irroration except beyond postmedial line, which is single, minutely waved, distinct; other lines practically obsolete; terminal shades weaker than above, especially on hind wing, the fore wing without dark apical and arrow-marks.

Mt. Poi, 200 feet—1 ♀.

In the absence of the ♂, it is impossible to assign to this species its true position in the genus. Perhaps near to *T. tephraea* (*Zethes tephraea* Turner, Proc. Linn. Soc. N.S.W., xxxiv, p. 348, 1909, Queensland). Probably nearest to an undescribed species.

HYPENINAE.

In view of the fact that the key definition of this subfamily given in Cat. Lep. Phal., iv, certainly does not in all cases hold good, a preliminary note on what is here meant by the name may not be out of place.

In the *majority* of Ophiderinae R^2 of the hind wing is given off from close to angle of cell, whilst in many of the Hypeninae it is given off at from $\frac{1}{2}$ to $\frac{2}{3}$ discocellulars; but there are a large number of exceptions. For example: in two of the best-known Hypenid genera, *Nodaria* and *Simplicia*, R^2 is given off almost from the angle; but both these genera are distinguished by the very long sickle-shaped palpus and also, in the ♂, by the sheath on the fore leg, concealing the tibia and (usually) one or two segments of the tarsus. This is a not uncommon character in the Hypeninae but I have not at present come across any example of it in the Ophiderinae.

Although I am not at present prepared to give any infallible distinction between the two subfamilies, the following points may be taken as a general guide. Sir G. Hampson's distinction based upon vein R^2 (to be used with certain reservations). The exceptional length of palpus, which is usually either sickle-shaped (as in *Simplicia*), with the second segment curved throughout, or straight and normally

porrect (as in *Hypena*). In the majority of Hypenid genera the ♂ has some specialized secondary character, sheath on fore leg, aborted fore tibia (with or without sheath), fold on costa of fore wing beneath, large tuft of hair on fore wing above or beneath or upon palpus or antenna, etc. The neuration appears to be much more variable than in most of the other subfamilies, the ♂ sometimes differing from the ♀ of the same species, or occasionally even individuals of one sex showing slight variation: in the genus *Hydrillodes* (possibly in other genera) some species have vein C of the hind wing anastomosing about normally whilst in other species there is no true anastomosis at all, C being joined to SC by a minute bar; this character, which by Sir G. Hampson's key to the families should not occur in the Noctuidae at all, seems to be not very uncommon in the Hypeninae. The build is generally slender and, apart from the palpus and secondary sexual tufts, the hairy vestiture is usually somewhat weak, even on pectus and legs. Although insufficient work has at present been done to allow of the publication of reliable statistics, the examination of the length of legs in this and other subfamilies, so far as at present carried out, seems to confirm Sir G. Hampson's statement in "Moths of India," Vol. III (subfamily diagnosis), that the legs average long.

There is almost certainly a difference in the shape of the body and also in the tympanum, which in most Hypeninae appears almost to divide the thorax and abdomen, cutting obliquely between the two. In more typical Noctuidae I have never observed this divided appearance—though the difference may be partly due to a difference in hairy vestiture.

The genera included in the above synopsis are for the most part those placed under "Polopogoninae" (Deltoidae) in Coll. British Museum; though some genera which were placed in the Hypeninae in "Moths of India," Vol. III but are now in the Ophiderinae may not improbably have to return to the former position when a more thorough study of them is undertaken.

ELYRA (?) EUGENES sp. n.

♂ 33 mm.; ♀ 31 mm.

♂ antenna bipectinate, the pectinations rather long, ending in curved bristles; ♀ with short bristles and very short cilia.

♂ palpus with segment 1 curved, rather more than diameter of eye; segment 2 three or four times diameter of eye, down-curved, clothed beneath with loose hair except at proximal end; segment 3 almost one-half length of 2, hairy and with a tuft of long hair beneath; ♀ sickle-shaped, with segment 1 nearly normal; 2 strongly curved throughout, about three times diameter of eye, with slight hair behind; 3 acuminate, about two-thirds length of 2. ♂ with a dense tuft of hair (on sheath?) covering the tibia and first segment of tarsus; mid and hind tibia tufted with blackish hair. Legs slender in ♀.

♂, ♀. Palpus, thorax and fore wing a dark warm sepia (Ridgway, pl. xxix), the hair on ♂ palpus ochraceous-buff; an ochraceous-buff spot at base of antennal shaft. *Fore wing* with the lines pale buff shaded with rufous; ante- and postmedial double, filled in with the ground-colour; ante-medial nearly erect; postmedial strongly bent outward round the disc, oblique and slightly incurved to just beyond middle of hind margin; subterminal single, nearly straight from costa to SC^5 , angled inward to postmedial line at middle of disc, curved outward to behind R^2 , incurved in fold; terminal dark lunules very broad; reniform erect, rather narrow, outlined in pure white; in the ♀ the distal half of white outline is almost obsolete. *Hind wing* fuscous-brown with slight pale postmedial and subterminal lines, obsolescent on anterior half of wing; terminal lunules broadened as on fore wing. *Underside* pale fuscous-drab with whitish postmedial and subterminal lines (minutely dentate on hind wing); hind wing with large dark discal spot, a smaller dark spot before it in cell.

Mt. Murud, November, without exact elevation—1 ♂; Mt. Penrissen, 4400 feet—1 ♀.

When this group is more thoroughly understood, *eugenes* may probably be found to belong to a distinct genus. It differs from *Mastigophorus brevivittalis* Moore, Proc. Zool. Soc., 1867, p. 87, Sikkim, in having the cell of fore wing slightly longer; SC^2 from areole (not stalked with SC^3 SC^4); R^2 of hind wing from about $\frac{2}{3}$ instead of almost from angle; ♂ palpus with segment 1 shorter, more curved, segment 2 much more curved and more hairy, segment 3

curved, and other minor differences; ♀ palpus hairy on segment 2 behind and with a suggestion of tuft at middle of segment 3 behind (worn); abdomen with small crests on one or two basal segments; ♂ fore leg apparently with a sheath; mid tibia and tarsus fully as long as hind tibia and tarsus (much shorter in *brevivittalis*). But the underside and the strong angulation at R² of fore wing above of the subterminal line strongly recall *brevivittalis*, and in that insect the ♂ palpus is sometimes drawn forward in a similar manner, suggesting an affinity; and as neither *phlegeusalis* Wlkr., type of *Elyra*, nor *larusalis* Wlkr., type of *Isana* (sunk by Hampson to *Elyra*) is yet known to me I have not ventured to erect a new genus. Hampson places *brevivittalis* in the *Isana* section of *Elyra*.

RAPHISCOPE Hampson.

To Hampson's diagnosis published A. M. N. H. (9) xv, p. 408, 1925, the following additions or corrections may be added. Palpus typically with segment 2 about $1\frac{3}{4}$ diameter of eye; segment 3 about twice length of 2. ♀ palpus sickle-shaped, with segment 1 normal; segment 2 fully twice eye, with short hair in front, tapering to distal end; segment 3 slender, acute, glabrous, nearly as long as 2. ♂ antenna typically with four long, straight oblique teeth on outer side before middle (not "at two-thirds"). Hind wing with cell about $\frac{2}{3}$; R² from about $\frac{2}{3}$ -- $\frac{3}{4}$ discocellulars; anastomosis typically to about $\frac{2}{5}$.

Section 11. Fore wing with areole, formed by a short bar thrown across from SC⁵ to SC²; SC³, SC⁴, SC² being given off a little earlier than in *invenusta* (from areole); anastomosis to barely $\frac{1}{3}$; ♂ palpus with segment 2 fully twice eye, segment 3 only about $\frac{3}{4}$ length of 2; ♂ antenna strongly serrate, (almost pectinate), the shaft without group of spines.

79. RAPHISCOPE SERRATA sp. n.

♂ 45 mm.; ♀ 43 mm.

Differs from *invenusta*, (*Bertula invenusta* Swinh., A. M. N. H. (7) ix, p. 177, 1902, Puló Laut) chiefly in the more solid darkening of terminal area of fore wing (beyond postmedial line), only interrupted by the well-defined paler subterminal, which is much less dentate on R³ and M¹

than in *invenusta*, and in the curve of the postmedial line, which in *serrata* is more strongly bent outward from costa, distally concave at R^2 , inwardly oblique (though minutely dentate on veins) from R^3 to middle of fold, distally dentate on SM^2 and hind margin; orbicular and reniform white, the former a sharply-marked round dot; medial area of wing less clearly buff-pink (Ridgway, pl. xxxviii), with broader dark clouding than in *invenusta*. Hind wing nearly as in *invenusta*, but termen slightly fuller (more rounded), at least in the ♂. Underside less tinged with buff than in *invenusta*, the postmedial line on both wings somewhat more excurved.

Mt. Murud, November, without elevation—1 ♀. The ♂ holotype is also from this collection, almost certainly from Mt. Murud, but is unfortunately one of the specimens over which some confusion has arisen in labelling.

In view of the important difference in neuration it may be necessary later on to create a new genus for *serrata*; but *serrata* and *invenusta* are so obviously nearly related and the transition from no areole to areole (by means of short bar) is in this instance so easily explained that I have preferred to describe *serrata* as a *Raphiscopa*.

80. LITHILARIA species.

Mt. Murud, 6000-6500 feet, October—1 ♀.

This specimen, which has lost one hind wing and is otherwise not in first rate condition, appears to be nearly related to *Mastigophorus punctilinea* Wileman (placed by Sir G. Hampson in *Lithilaria*), the type of which I have been permitted to see, by the kindness of Mr. Wileman. It might possibly even be the ♀ of *punctilinea*, but will far more probably be found to be at least racially distinct. It has not seemed advisable to publish any description from one rather poor ♀.

81. BLEPTINA DELOSTICHA Swinh.

Bleptina delosticha Swinh., A.M.N.H. (7) xvii, p. 552, Sumatra.

This species seems to be confined to the Malayan subregion. It is almost certainly neither a *Bleptina* (American) nor a *Bertula*. Perhaps more nearly related to *Adrapsa*, but the cell of hind wing is slightly long for that genus, with R^2 rather far removed from the angle. As the affinities of *delosticha* are so uncertain I have preferred to quote it under the genus in which it was originally described.

82. *BERTULA LEUCOPIS* Hmps.

Bertula leucopis Hmps., A.M.N.H. (9) xv, p. 410, 1925, Ichang.

Mt. Poi, 200 feet—1 ♂.

This specimen has a distinct dark claviform mark which is absent in the type; otherwise there seems little to differentiate the two. Possibly racially distinct.

83. *BERTULA ROSTRILINEA* sp. n.

♀ 28 mm.

Palpus, head and thorax above cinnamon tinged with tawny; abdomen, body beneath and legs predominantly a dark drab. *Fore wing* cinnamon tinged with tawny to postmedial line, dark drab to termen; subbasal and antemedial lines indicated by metallic blue scales, the former curved, close to body, the latter outwardly dentate at SC and M, oblique from M to hind margin near base; a black spot just beyond it on costa; reniform obliquely oval, pale, with a dark streak at middle, the area beside and behind it darkened from near antemedial line to postmedial; postmedial line double, crenulate, the inner line fine from a broad black spot on costa, bent outward from costa, inwardly oblique to middle of disc, where the inner line touches the reniform, angled outward at M¹, upon which and on M² it is sharply dentate, slightly dentate in fold and on SM² but nearly erect from M² to middle of hind margin, distally defined by an almost black shade, which is sharply defined on its outer edge by some metallic blue scales (weak towards costa), nearly erect from costa to near R³, behind which it is bent outward in a snout-like prominence, thence strongly retracted and incurved to hind margin; subterminal tawny, outlined on each side by dark scales, bent outward between SC⁵ and R², strongly bent outward to M¹, where at M², in fold and at SM² it is distally dentate; terminal dark lunules fairly distinct. *Hind wing* dark drab with a bright tawny, dentate subterminal line, obsolescent on anterior half of wing, preceded on posterior half by metallic blue scales. *Underside* dark drab, with slight discal lunule, weak dark postmedial and pale subterminal line on both wings; fore wing bright tawny at and behind proximal three-fourths of costa.

Mt. Penrissen, 4400 feet—1 ♀.

In the absence of the ♂ the generic position of *rostrilinea* is not quite certain, especially as the small triangular tuft at middle of segment 3 of palpus behind is wanting; but there is a small dark mark on the segment where the tuft should come, suggesting that it is merely worn off (as often happens in poor ♀ of this genus) and *rostrilinea* appears to be a *Bertula*, perhaps nearest to *impuralis*, (*Bleptina impuralis* Hmps. n., Journ. Bombay Soc., xi, p. 698, 1898, Khasias.)

84. NODARIA EXTERNALIS Guen.

Nodaris externalis Guen., Delt. et Pyral., p. 64, 1854, Coromandel Coast.

Mt. Poi, 200 feet—1 ♂.

Very widely distributed and common. The only true *Nodaria* known to me from the Indo-Australian region, the other species quoted under this name in the "Moths of India" all belonging to other genera. Structurally *Nodaria* is extremely close to *Simplicia*, to which it should perhaps have been placed next. It is quite in error that Sir G. Hampson describes it as having R^2 of the hind wing "from near middle of discocellulars."

BLEPTINODES Hmps.

To the description of this genus published in A. M. N. H. (9) xv, p. 409, 1925, the following additions or corrections are added. Palpus typically with segment 2 fairly well curved throughout, about $1\frac{2}{3}$ --2 diameter of eye. Fore leg with narrow, slender sheath covering tibia and about $\frac{1}{3}$ first segment of tarsus, fitting so closely as to be difficult to discern. Hind wing typically with anastomosis to about $2/5$; cell nearly $2/5$ length of wing (not "half"), with SC^2 , R^1 , R^3 , M^1 shortly stalked (not "from angle"), R^2 , M^1 typically longer stalked than SC^2 , R^1 ; R^2 typically from not quite $\frac{2}{3}$ discocellulars. Note: the stalking varies in individual specimens of *perumbrosa*, but is practically always present—certainly present in the case of R^3 -- M^1 in all specimens at present examined.

Section: Segment 2 of palpus rather more weakly curved, more than twice eye; segment 3 about $\frac{2}{3}$ length of 2, with tuft behind at middle only. Hind wing with anastomosis shorter (to about $\frac{1}{3}$), R^3 -- M^1 very shortly stalked; R^2 more curved than in *perumbrosa*, from close to angle of cell.

85. BLEPTINODES TANAOCROSSA sp. n.

♂. 32 mm.

Palpus, head and thorax deep purplish-fuscous; abdomen greyish-fuscous. *Fore wing* natal brown (Ridgway, pl. xl), more seal brown (pl. xxxix) from antemedial to subterminal line; narrow tawny streaks at base and proximally to antemedial line, which is blackish, erect but dentate at the veins (especially SC¹); a slight tawny orbicular spot in cell close to antemedial line; reniform narrow, tawny, new-moon shaped; postmedial line blackish, slightly diffused, bent outward at SC⁵--R¹ and at R³--M¹, bent inward opposite disc, inwardly oblique to middle of fold but slightly angled on M², bent outward to SM² and inward to near $\frac{2}{3}$ hind margin; terminal lunules sharply marked; fringe long. *Hind wing* nearly uniform glossy drab, with faint traces of discal spot, postmedial and subterminal lines; terminal lunules weaker than on fore wing; fringe very long, with a dark line through the middle. *Underside* dark drab; hind wing paler than fore wing, with large dark discal spot and pale, waved, proximally dark edged postmedial and subterminal lines.

Mt. Murud, 6000-6500 feet, November—1 ♂.

86. HIPOEPA FRACTALIS Guen.

Herminia fractalis Guen., Spec. Gén. Lép., viii, p. 60, 1854, Cent. India.

Pah Trap, November—1 ♂.

This species is before me from Ceylon, Burma and Sarawak, but not in sufficient numbers or good enough condition for it to be possible to say whether there is any racial variation. Specimens from Ceylon and Sarawak appear very close.

87. MIXOMELIA PALUMBINA Btlr.

Herminia palumbina Btlr., Ill. Het. B.M., vii, p. 88 pl. cxxxiv, fig. 9, 1889, Dharmasala.

Mt. Murud, November—1 ♀.

An Indian insect; in the Joicey collection from the Khasias only. In the Sarawak ♀ the wings appear slightly more elongate. The reniform is rather more oblique than in Indian specimens; on the hind wing, the anterior part of postmedial line is rather further removed from termen, the line being more oblique from costa to M². On the underside the discal

spot is single on both wings, the lines somewhat weaker than in Indian ♀. These differences may well be racial, but I refrain from erecting a new subspecies upon a single ♀. This species is not extremely close to *M. decipiens* (genotype), but it is now placed in *Mixomelia* in Coll. Brit. Mus. and is structurally sufficiently near to *decipiens* to render it possible to accept the classification.

88. *MIXOMELIA DIGRAMMA* sp. n.

♂, 23 mm.

Coloration and markings nearly as in *M. producta*, (*Nodaria producta* Hampson, Journ. Bomb. Soc., xvii, p. 669, 1907, Ceylon) from which it differs in the following particulars. Antenna bipectinate (serrate, with stout bristles and cilia, in *producta*). Wings (especially fore wing) rather narrow; antemedial and subterminal lines rather straighter, more parallel (less oblique) than in *producta*, of more equal strength, both outstandingly dark; subbasal and postmedial line and discal spot weakly marked. *Hind wing* with subterminal line nearly obsolete before R¹. *Underside* with subterminal dotted line weaker than in *producta*. Ground-colour rather more fuscous than in *producta*; size smaller.

Mt. Poi, 200 feet—1 ♂.

This does not appear immediately close to the last species, but this group is also included by Sir G. Hampson in *Mixomelia*. Probably *diagramma* is somewhat nearer than *palumbina* to the genotype.

89. "LEUCINODES" *DISCISIGNA* Moore.

Leucinodes discisigna Moore, Proc. Zool. Soc. Lond., 1883, p. 29, Darjeeling.

Mt. Murud, 6500 feet, November—1 ♀; November, without exact elevation—1 ♀.

The ♀ from 6500 feet is larger than the other, with the postmedial line on fore wing rather more strongly bent outward behind M and the subterminal more broadly interrupted at and about fold. In all these respects it agrees better with *Helia lunifera* Moore (Lep. Ceyl., iii, p. 238), which Hampson in his "Moths of India" sinks to *discisigna*, but which appears to me quite separate, being distinguished in the ♂ by the serrate-fasciculate antenna (bipectinate in

discisigna) in addition to the points mentioned above. It is possible that the two specimens from Mt. Murud may prove to be the Sarawak representatives of *discisigna* and *lunifera*, but it is quite impossible to form any definite opinion from two ♀, one of which (the *lunifera* form) is distinctly worn.

Sir G. Hampson has a MSS name for this genus, which seems to stand quite alone, comprising only two or three species of almost exactly similar pattern; but it has seemed undesirable to take up space here with the diagnosis of a genus in which no new species is described. I have therefore as with "*Bleptina*" *delosticha* been obliged to employ the original, incorrect generic name.

90. SIMPLICIA BUTESALIS Wlkr.

Libiosa butesalis Wlkr., Spec. Lep. Ins., xvi, p. 187, 1858, Sarawak.

Mt. Dulit, 3000 feet—1 ♀; Mt. Poi, 4500 feet and 3500 feet—2 ♀.

In the absence of ♂ this cannot be regarded as quite a certain determination, especially as the Mt. Dulit ♀ and one of the two from Mt. Poi are in poor condition; but they appear to belong to *butesalis*. Forms of this species are before me from Ceylon, Central Buru, New Guinea and Rook Is. The eastern form may probably prove racially distinct from the western.

91. SIMPLICIA NIPHONA Btlr.

Bocana niphona Btlr., Ill. Het. B.M., ii, p. 56, pl. xxxviii, fig. 9, 1876, Japan.

Mt. Murud, 6000--6500 feet, October—2 ♀; also 1 ♀ from this collection without data. A single ♀ from Mt. Penrissen, 2000 feet, is placed here provisionally, though the fore wing appears slightly narrow, with the distal spot unusually lunular.

As I have not at present been able to find any constant difference between Malayan, Indian and Japanese specimens of this species, I have employed the oldest name, *niphona* Btlr.; but it is more than probable that a clear study from much larger material will reveal some racial distinction; in which case, the Indian form will stand as *S. similis*. (*Aginua similis* Moore, Lep. Atk., p. 195, 1882, Darjeeling), a name sunk by Hampson in his "Moths of India" to

niphona. The Sarawak form does not appear to have received any separate name. Before me in the Joicey collection from Japan, India, South West Sumatra and Sarawak.

92. SIMPLICIA SIMULATA Moore.

Aginua simulata Moore, Lep. Atk., p. 195, 1882, Central India.

Mt. Poi, 5000 feet—1 ♀.

In the Joicey collection from Ceylon only, but is very close to *caenusalis* Wlkr. (Queensland), of which it may be only a race; in which case the collective species has evidently a wide distribution. In his "Moths of India," Sir G. Hampson erroneously sinks both these species to *robustalis* Guen.

93. SIMPLICIA XANTHOMA sp. n.

♂, 37 mm.

Nearly agrees in structure with *S. turpatalis*, (*Bocana turpatalis* Wlkr., Spec. Lep. Ins., xvi, p. 174, 1858, Ceylon,) sunk by Hampson (erroneously?) in his "Moths of India" (vol. iii, p. 36) to *robustalis* Guen., but the thickening on ♂ antenna is a trifle larger, the third segment of palpus is more densely covered with scales and the androconial hair on fore wing is confined to the costal half of proximal area, narrowing to a point at antemedial line; this hair is absent from the base of hind wing. The ante and postmedial lines and discal spot on fore wing are rather better defined than in *turpatalis*; the pale subterminal is slightly broader, not waved behind costa. Hind wing rather more smoky than in *turpatalis*. Underside darker than in *turpatalis*, the hind wing with the postmedial line broadly diffused and scarcely waved.

Mt. Poi, 4350 feet—1 ♂.

94. SIMPLICIA BREVICOSTA sp. n.

♂, ♀, 48--53 mm.

Antennal shaft in ♂ nearly simple (weakly lamellate beneath), with somewhat fasciculate cilia nearly twice diameter of shaft. The sheath on fore leg covering practically the whole of segment 1 of tarsus, which is itself clothed with long hair (apparently somewhat dilated). *Fore wing* rather broad for a *Simplicia* species, the ♂ costa slightly swollen at base and just before middle of wing; costa

rather short in both sexes, with the termen almost outwardly oblique from apex to R^2 . Areole absent, SC^5 from angle of cell, SC^2 well stalked with SC^3 , SC^4 . *Wings* dark vinaceous-drab, with the usual *Simplicia* pattern, fore wing rather darker than hind wing; both wings with termen somewhat paler, violet-grey. Fore wing with the discal spot black; ante- and postmedial lines weak, wavy, the ante-medial obliquely curved, postmedial excurved round cell (bent inward at discal fold); subterminal line proximally edged by broad dark shading. Underside nearly uniform drab, both wings with discal spot, postmedial and subterminal lines.

Mt. Poi, 4350 feet—1 ♂, 1 ♀; 5000 feet—2 ♀.

SUBSIMPLICIA Gen. Nov.

Near *simplicia*, from which it differs principally in the position of R^2 of the hind wing, which is given off well before angle of cell (at about $4/5$), and in the weaker curve of segment 2 of palpus, which is fully twice diameter of eye (about $1\frac{3}{4}$ in *S. rectalis* Ev.); in *subsimplicia* this segment is slightly swelled behind on proximal $\frac{1}{3}$ and distinctly tufted on distal $\frac{2}{3}$ (in *rectalis* the thickness is more equal, the scaling slighter). Other points of difference from *Simplicia* (*rectalis*) are as follows:—cells of both wings a little shorter; areole present (very small, with SC^2 well stalked); hind wing with SC^3 - R^1 minutely stalked, R^3 not stalked with M^1 , termen of wing more evenly rounded; segment 3 of palpus only about half the length of 2, with small triangular tuft at middle behind; abdomen with rough dorsal hair on 2 or 3 basal segments; middle and hind leg (tibia and tarsus) rather longer, about $\frac{2}{3}$ and nearly $\frac{3}{4}$ length of costa. The ♂ fore leg short, with a large sheath covered with dense black hair, concealing all but the last two segments of tarsus; about as in *circumscripta*. (*Aginnia circumscripta* Wlkr., Spec. Lep. Ins., xxxiii, p. 1023, 1865, Penang). These sheaths seem often an important generic character in the *Hypeninae*. *Subsimplicia* appears somewhat intermediate to *Adrapsa*, but the latter genus is distinguishable by the unusually short cell of hind wing ($\frac{1}{3}$ or less) and, in the ♂, by the absence of fore-tibial sheath and by the palpus, which shows considerable variation but seems practically never to be sickle-shaped (as in the ♀ and in both sexes of *Simplicia* and *Subsimplicia*).

95. SUBSIMPLICIA PUNCTILINEA sp. n.

♂ 36--41 mm.

Palpus, head and thorax vandyke-brown; abdomen, pectus and legs more purplish-fuscous, the hair on fore leg darker. *Fore wing* somewhat russet to antemedial line, tinged with dark Indian Red (Ridgway, pl. xxvii) from antemedial line to termen; lines somewhat indistinct except the subterminal, which is white, broken into spots, slightly angled outward behind SC⁵ and incurved in fold, where the spot is large and conspicuous; ante- and postmedial lines black, crenulate; antemedial slightly oblique outward from 2/7 costa to middle of fold, angled inward on SM²; postmedial bent outward to R¹, strongly oblique inward from R³ to middle fold, bent outward to hind margin, distally dentate on the veins; no distinct orbicular; discal spot moderately large, blackish; the terminal blackish lunules large and conspicuous; fringe with a conspicuous white line at base. *Hind wing* more drab, with discal spot, postmedial and subterminal lines, the latter slight except at fold, where it is whitish and angled as in *Simplicia* species; termen and fringe as on fore wing. *Underside* nearly uniform fuscous-brown with a slight purple gloss, both wings with blackish discal lunule, curved, minutely crenulate postmedial line and pale subterminal spots between the veins, slightly dark-edged on proximal side.

Mt. Poi, 5200 feet—1 ♂; 4500 feet—2 ♂; 4300 feet 1 ♂ holotype. Also a rather poor ♂ from Mt. Murud, November, without exact elevation.

Lusemelia iodes Roths., Journ. Fed. Malay St. Mus., viii, p. 125, 1920, Sunatra, appears to belong to this genus.

96. ADRAPSA ABLUALIS Wlkr.

Adrapsa ablualis Wlkr., Spec. Lep. Ins., xvi, p. 170, 1858, Ceylon.

Lio Matu, December—1 ♀.

Before me from Ceylon and Sarawak. There is at present insufficient material to hand for a definite decision as to racial agreement or distinction, but the ♀ from the two localities appear much alike.

97. *ADRAPSA MARMOREA* Swinh.

Oreanamus marmorea Swinh., A.M.N.H. (7) x, p. 503, 1903, Kina Balu.

Mt. Murud collection—1 ♂ without exact data; Mt. Penrissen, 2000 feet—1 ♀.

Known to me from the Malayan subregion only.

98. *ADRAPSA GEOMETROIDES* Wlkr.

Lusia geometroides Wlkr., Spec. Lep. Ins., xiii, p. 1113, 1857, Ceylon.

Mt. Poi, 2000 feet—1 ♂; Mt. Penrissen, 2000 feet—1 ♂.

The Mt. Penrissen ♂ belongs to a dark aberration, not uncommon in the Malayan subregion, in which the ground-colour is somewhat more fuscous than in the typical form and the white lines on the hind wing are reduced to a single postmedial and subterminal. It is just possible that this is really a distinct species, but it seems to agree perfectly in structure with *geometroides*. In the Joicey collection from Ceylon, India, Malay Peninsula, Borneo, New Guinea, Goodenough, and Sudest Is.

99. *ADAPSA INSOLIDA* sp. n.

♀ 38--41 mm.

Antenna minutely serrate on distal third, clothed with fine short bristles and extremely short cilia. Palpus with segment 2 well over twice diameter of eye, moderately scaled in front, slightly thickened with scales on proximal half behind; segment 3 acuminate, fully two-thirds length of 2. Coloration somewhat as in *geometroides* but slightly more fuscous in tone. Markings somewhat as in the dark aberration of *geometroides*, but fore wing with discal spot more elongate, scarcely or very narrowly white-marked; postmedial line single, strongly bent outward and dentate on veins R^2 to M^1 and on SM^2 ; subterminal almost equally well-defined throughout, somewhat more strongly bent outward behind SC^5 and R^2 than in *geometroides*; terminal white patch reduced to a dot between SC^4 and SC^5 . *Hind wing* with the termen more bent at M^1 than in *geometroides*, with the lines also slightly more bent at middle. *Underside* somewhat as above but with discal lunules on both wings more broadly white; fore wing with posterior half of subterminal line weaker.

Mt. Murud, 6000-6500 feet, October—(type), 24, November—4 ♀.

In the absence of the ♂, it is impossible to decide the exact position of this species, but it may well prove nearly related to *geometroides*. Possibly, however, nearer to *A. albirenalis* Moore, from Sikkim, which is unfortunately not before me for comparison.

100. *ADRAPSA ANGULILINEA* sp. n.

♂, ♀, 30 mm.

♂ antenna unipectinate to about $\frac{3}{4}$, the shaft not swelled or contorted; ♀ nearly simple, with very short cilia. ♂ palpus with segment 3 triangularly tufted with scales before and behind; segment 2 straight, erect, with a tuft of scales on discal half behind, the scaling in front long on proximal two-thirds and at distal end (may be worn away between). ♀ palpus much as in the last species, but with segment 2 shorter (scarcely twice diameter of eye); segment 3 almost as long as 2. ♂ fore wing without distinct costal fold but with fringe of long hair on proximal $\frac{1}{8}$.

♂, ♀. Body and wings above drab, the fore wing tinged with wood-brown; wings with a rounded white cell-spot, the termen of fore wing from apex to behind R^2 paler, tinged with ochraceous, with a dark spot at apex. Fore wing with slight, dark, nearly erect ante- and postmedial lines, the postmedial bent outward from an oblique pale spot at $\frac{3}{5}$ costa, slightly undulating to R^3 , where it is sharply angled, somewhat incurved and undulating to $\frac{2}{3}$ hind margin; subterminal very weak except against the pale area; termen with dark lunules. *Hind wing* with a straight, diffused, dark medial line, touching the discal spot, and an outstandingly dark diffused shade on proximal side of postmedial, which is waved, strongly bent outward and dentate between R^2 and M^1 ; subterminal slight, waved. *Wings beneath* nearly as above but a little paler, with the postmedial dark shade equally strong on both wings, less broadly diffused on the hind wing than above; the apical dark spot on fore wing very sharply defined.

Mt. Poi, 200 feet—1 ♂; Mt. Penrissen, 2000 feet—1 ♀.

The exceptionally long stalking of SC^2 with SC^3 -- SC^4 in *angulilinea* places it somewhat apart from the majority of *Adrapsa* species, but in other respects it seems so clearly

to belong here that I have had no hesitation in placing it in *Adrapsa*. The short cell of hind wing and the ♂ palpus are extremely characteristic of the genus, and, although the fore leg is somewhat damaged, it appears to be without the sheath of *Simplicia* and *Nodaria*.

101. *BOCANA MANIFESTALIS* Wlkr.

Bocana manifestalis Wlkr., Spec. Lep. Ins., xvi, p. 171, 1858, Ceylon.

Pah Trap, November—1 ♀; Mt. Dulit, 3000 feet—2 ♀; Mt. Penrissen, 2000 and 4000 feet—2 ♀.

Widely distributed throughout the Indo-Australian region. One of the Mt. Dulit ♀ is exceptionally large, but it appears to belong here; the Pah Trap ♀ and the Mt. Penrissen one from 4000 feet belong to the non-typical form, without distinct white on discal spot of fore wing.

102. *BOCANA INCOMPLETA* sp. n.

♂, 40--42 mm.

Nearly agrees in structure with *manifestalis*, from which it differs in the following points. Size rather larger: antennal pectinations replaced at the distal end by bristles (extending practically to end in *manifestalis*); segment 2 of palpus hardly thickened at middle behind (distinctly thickened in *manifestalis*); costa a little larger. Wings above with the markings very weak; postmedial shade nearly erect (but twice excurved) from costa to R², thence incurved; subterminal shade about as in a weakly marked specimen of *manifestalis*. Hind wing paler and greyer than the fore wing, with faint traces of postmedial and subterminal shades. Wings beneath very pale grey, somewhat darkened distally and at costa of fore wing: markings present but weak, the lines on hind wing less waved than in *manifestalis*. The Mt. Poi specimen is slightly blacker in tone than the type.

Mt. Murud, November, without exact elevation—1 ♂; Mt. Poi, 4500 feet—1 ♂.

103. *BOCANA SILENSALIS* Wlkr.

Asthalia silenusalis Wlkr., Spec. Lep. Ins., xvi, p. 129, 1858, Sarawak.

Mt. Penrissen, 3500 feet—1 ♀.

A somewhat melanic aberration, but not appearing otherwise to differ from the type. *Silenusalis* is represented in the Joicey collection from Khasias, Malay Peninsula and Sarawak.

Although the genus *Bocana* is separated from *Adrapsa* chiefly by a secondary sexual character, the presence (in *Bocana*) or absence (*Adrapsa*), of a large fold on and behind costa of ♂ fore wing beneath, it has seemed well to preserve this well-known name provisionally, especially as these sexual characters seem often more fundamental in the *Hypeninae* than in many of the other *Noctuid* subfamilies.

104. *HYDRILLODES TORESALIS* Wlkr.

Bleptina toresalis Wlkr., Spec. Lep. Ins., xix, p. 875, 1859, Sarawak.

Mt. Murud, November, without exact elevation—1 ♂, 3 ♀. Also a ♂ and ♀ from the same collection with the data wanting.

Although the type of *toresalis* is a ♀, the quadrate scaling on segment 2 of palpus, as well as the fact that similar ♂ and ♀ occur together in various parts of the Indo-Australian region (India, Malay Peninsula, Ceram, New Guinea, etc.) make it almost certain that the sexes are correctly paired. Sir G. Hampson, in his "Moths of India" and in Coll. Brit. Mus. has sunk this species to *abavalis* Wlkr. (*Echana abavalis*), from Ceylon, but the two are in reality quite distinct, at once separable by the smaller size and darker coloration of *abavalis*, as well as by the neuration; in *abavalis* SC^2 is more or less parallel with SC^{3-4} , well removed from SC^1 ; in *toresalis* ♂ SC^2 is parallel with SC^1 , somewhat remote from SC^{3-4} .

105. *HYDRILLODES PTEROTA* sp. n.

♂, ♀, 23--26 mm.

♂. Antenna subserrate, with bristles nearly twice diameter of shaft and shorter ciliation. Palpus sickle-shaped, with segment 2 strongly curved, nearly twice diameter of eye, shortly scaled in front; segment 3 long (about three-quarters of 2), with rather long scaling behind, tapering to a point. Fore wing rather short and broad, the proximal half of costa above thickened and bearing a dense tuft of long, down-curved scales, which are very easily disarranged, giving to the proximal half of wing a very unusual appearance. This

tuft is followed by a short, deep fold, which is darker than the rest of the wing—probably filled with dense black hair.

Head, thorax and *fore wing* above buff-brown, the latter irregularly dark-banded at middle; a dark spot in the fold near base, followed by an indistinct, slightly curved antemedial (?) line; a very indistinct medial line, forming the proximal boundary of the dark shade; postmedial line almost obsolete; subterminal pale (bordering the dark shade), waved and minutely dentate, strongly bent outward before R^1 and behind R^2 ; costa with two or three large, bright ochraceous spots; terminal black spots very distinct. *Hind wing* brownish-fuscous, paler at base, with a slight dark discal lunule and traces of postmedial and subterminal lines. *Underside* buff-brown; the hind wing whiter except towards termen, with large dark discal spot and minutely dentate postmedial and subterminal lines; fore wing with traces of a pale subterminal line on the anterior half.

♀. A normal *Hydrillodes* ♀; fore wing with the distal third very dark, the proximal two-thirds of wing with some strongly contrasting pale shades but unusually suffused with fuscous; generally with a large dark discal spot. Hind wing and underside as in the ♂.

Mt. Dulit, 3000 feet—1 ♂; Perak, 2000--3500 feet (W. Doherty)—5 ♂, 1 ♀; Kedah Peak 3200 feet, December, 1915—2 ♂, 4 ♀. The last named specimens have been submitted to us by the Raffles Museum, by whose generosity half the specimens will become the property of Mr. J. J. Joicey. A ♀ from Mt. Penrissen, 4400 feet, is placed here provisionally.

On account of the great difficulty of this group and the frequency of racial variation it has seemed wiser to select one of the five Perak ♂ as the type, rather than the single ♂ from Mt. Dulit.

106. HYDRILLODES POIENSIS sp. n.

♂, 26 mm.; ♀, 22--24 mm.

♂. Structure about as in *pterota*, but *fore wing* much darker, more purplish-fuscous. *Hind wing* slightly greyer in tone, with a rather better-developed postmedial line, which is further removed from the discal spot than in *pterota*; the difference in this line is even more marked beneath, where,

also, the subterminal is almost obsolete and the discal spot is narrower, more lunular. The pale subterminal entirely wanting on fore wing beneath, where both wings are darker and much greyer in tone than in *pterota*.

♀. Differs from *pterota* ♀ very much as the ♂ differs from the ♂, the fore wing above being often almost entirely suffused with purplish-fuscous.

Mt. Poi, 5200 feet—1 ♂, 4500 feet—3 ♀, 4400 feet—1 ♀.

It is possible that *poiensis* is only an aberration or race of *pterota*, but it seems sufficiently distinct to be deserving of specific rank.

107. HYDRILLODES MURUDENSIS sp. n.

♂, 28 mm.; ♀ 25--30 mm.

♂. Very nearly agrees in structure with the last two species, but SC⁵ is more definitely stalked with SC^{3,4} and is distinctly down-curved at middle (evenly curved throughout in the other two species). The *fore wing* above is coloured very much as in *pterota* but seems less banded with fuscous; hind wing distinctly paler than in either of the other two species, with postmedial line somewhat as in *poiensis*, but rather nearer to the discal spot. *Underside* somewhat intermediate; nearly the colour of *pterota*, but less sharply marked and without the pale subterminal line.

♀. Very near to the ♀ of *pterota*, but fore wing with the discal spot even larger and blacker, followed distally by a conspicuous rounded pale spot; postmedial line rather more sharply angled.

Mt. Murud, without exact data—1 ♂, 1 ♀; summit, 7200 feet, November—1 ♀; 6500 feet, November—5 ♀; 6000--6500 feet, October—4 ♀, November—2 ♀; without exact elevation, November—4 ♀.

Another possible aberration or race, but the differences seem sufficient to be regarded as specific.

108. HYDRILLODES MINOR sp. n.

♂, ♀, 21--22 mm.

♂. Palpus with the scaling evenly rounded in front. Antenna semiserrate, with curved bristles two or three times diameter of shaft and shorter ciliation. Fore tibia with rather long, dense, woolly hair, the tarsus glabrous. *Fore wing* with a highly raised fold at middle, somewhat as in

abavalis, (*Echana abavalis* Wlkr., Spec. Lep. Ins., xvi, p. 196, 1856, Ceylon) but smaller, though quite as highly raised (filled with very dense hair?) and forming a more distinct swelling at costa. Vein SC^1 abnormally close to SC^2 SC^5 abnormally close to SC^{3-4} , the two pairs of veins widely separated by the fold which is almost as strongly swelled beneath as above. Coloration appears more or less as in *abavalis* (condition is not good), the lines almost obsolete, a slight, wavy, dark subterminal the least indistinct. *Hind wing* pale fuscous-brown with faint indications of a discal spot and of curved postmedial and subterminal lines, which are more distinct beneath, where the ground colour is whiter. Fore wing beneath nearly uniform drab-brown, the fold more ochraceous white towards costa.

♀. Much like a small *lentalis* ♀, Delt. et Pyr., p. 66, 1854, Central India, the hind wing slightly narrower and with more dark irroration than in Ceylon and Indian ♀ of *lentalis*. This cannot be regarded as a certainly correct pairing, the ♀ in this genus so strongly resembling one another.

Mt. Murud, 7200 feet (summit) November—1 ♂; without elevation, November—1 ♀; Mt. Dulit, 3000 feet—1 ♂. Also in Coll. Joicey from Perak, 2000--2500 feet (W. Doherty)—2 ♂, 1 ♀, and in Coll. Brit. Mus. from Sarawak, 4 ♂ and a (doubtful) ♀, and from Singapore, 3 ♂ placed over a blank label.

Some specimens from Singapore and Perak seem a trifle broader winged and paler in tone than Sarawak ones and may prove distinct, but the difference may well be merely aberrational.

109. HYDRILLODES EUCAULA sp. n.

♂, 32 mm.

Costa of fore wing above with small, somewhat flattened fold just beyond middle, preceded on proximal side by a narrow flap edged with short, dense, down-turned scales; SC^1 given off almost opposite to or slightly before R^1 , very close to SC^2 ; SC^5 stalked with SC^{3-4} , to nearly one-third. Palpus normal (rounded in front). Antenna subserrate, with bristles and ciliation about twice diameter of shaft.

Fore wing dark purplish-fuscous with a row of subterminal white spots on the veins; other markings almost obsolete. Head and thorax (as usual) matching fore wing; palpus bright buff in front and on inner side. Abdomen and *hind wing* greyish-fuscous, the latter paler on proximal two-thirds, whitish at base; the discal spot, veins and terminal lunules darker. *Underside* somewhat as above but both wings paler, the hind wing with a sharply defined discal spot and with pale, wavy, proximally dark bordered medial and postmedial lines.

♀, 27--32 mm.

Fore wing without the costal fold and fringe of scales; venation normal, with SC^5 given off just before SC^2 . A pale spot on costa at origin of postmedial line, which is sometimes very faintly indicated throughout (curved); a dark discal spot usually just discernible. *Hind wing* and *underside* much as in the ♂.

Mt. Murud, 6000--6500 feet, October—1 ♂; 6500 feet, November—1 ♀; without exact elevation, November—1 ♀. Also 2 ♀ from Mt. Poi (5200 feet and 4400 feet), and 1 ♀ from Mt. Penrissen, 3500 feet.

A narrower-winged insect and more uniform purplish-fuscous in tone than the majority of *Hydrillodes* species; perhaps nearest to *funestalis*. (*Bleptina funestalis* Wlkr., Spec. Lep. Ins., xxiv, p. 1163, 1865, Moreton Bay.) But remarkable in the ♂ for the stalking of SC^5 with $SC^{3,4}$.

110. HYDRILLODES GRAVATALIS Wlkr.

Bocana gravatalis Wlkr., Spec. Lep. Ins., xvi, p. 175, 1858, Ceylon.

Mt. Murud, November—1 ♀; Mt. Penrissen, 3500 feet—1 ♀.

The Sarawak form (*erythusalis* Wlkr.) does not appear to me to differ racially from *gravatalis* from Ceylon. Only known to me from these two localities and (in Coll. Brit. Mus.) from Travancore.

111. HYDRILLODES PERTRUNCATA sp. n.

♂, 32--35 mm.

Palpus sickle-shaped; segment 1 rather longer than the normal; segment 2 strongly curved, shortly and evenly scaled, fully $1\frac{1}{2}$ diameter of eye; segment 3 acute, with very slight hair before and behind, more than twice length of 2.

Antenna weakly serrate, with long curved bristles. *Fore wing* broad, strongly truncate at apex, with termen and hind margin both well rounded, costa with a very narrow fold ending at the truncation of apex; almost uniform fuscous-brown, the scales easily removed, leaving irregular whitish spots and patches. *Hind wing* whitish tinged with pinkish-brown (especially towards termen), with indistinct discal spot and a very weak, curved postmedial line placed very near to the disc; a slight dark terminal line. *Underside* of fore wing much paler than above with slight discal lunule; hind wing somewhat more strongly darkened than above, with darker discal spot.

Mt. Murud, 6500 feet, November—4 ♂; 6000-6500 feet, November—2 ♂.

After earnest consideration it has seemed to me possible to place this species in *Hydrillodes*, on the strength of the general similarity (except in breadth and shape of fore wing) and the fact that $SC^{3,4}$ of fore wing appear to be coincident throughout. *Pertruncata* should however belong at least to a distinct subgenus, characterised by the broader fore wing and especially, by having M^1 from the cell, not stalked, and $R^2.R^3$ only very shortly stalked instead of on a long stalk as, in typical *Hydrillodes*.

112. Genus ECHANELLA Beth. Bak.

This genus is near to *Hydrillodes* but is at once separable on the following characters. Palpus, head and thorax with a strong metallic purplish gloss on the scaling, the metathorax with a small metallic crest. ♂ fore wing with SC^3 , SC^4 stalked (not coincident); ♂ antenna with the shaft distorted at about $2/5$. Fore wing in both sexes with M^1 from the cell (not stalked with $R^2.R^3$), R^2 , R^3 typically from cell, stalked in one section (subgenus?) hind wing with long anastomosis to or to just beyond middle of cell.

Type: *Adrapsa albibasalis* Holl. (♀) Nov. Zool., vii, p. 572, 1900, Buru.

= *Nodaria rugosa* Holl. (♂) Zool., vii, p. 575, 1900, Buru.

= *Hydrillodes funerea* Beth. Bak. (♀) Nov. Zool., xv, p. 214, 1908, Br. N. Guinea.

= *Echanella purpurea* Beth. Bak. (♂) Nov. Zool., xv, p. 216, 1908, Br. N. Guinea.

We are indebted to the kindness of Mr. Bethune Baker for the loan of the types of *purpurea* and *funerea*, which has made possible the above study in nomenclature and synonymy. As I have not had access to any ♂ from Buru or from any of the Moluccas, it is impossible to say whether there is any racial difference between Moluccan and New Guinea specimens, but, judging from the usual variability of the *Hypeninae*, such a difference is quite likely to exist, in which case the New Guinea form would stand as *albibasalis funerea* Beth. Bak.

112. ECHANELLA TEMPERATA sp. n.

♂, ♀, 33--36 mm.

♂ antenna and palpus much as in *albibasalis* Holl.; vertex of head whitish; thorax and abdomen about as in *albibasalis*. Fore wing without costal fold or hair tuft, cinnamon buff more or less irrorated with warm sepia to just beyond postmedial line; distal third of wing warm sepia crossed by the buff subterminal line and by a slight horizontal buff streak about SC⁵; a subbasal dark mark at costa; a wavy dark antemedial line bent outward to fold, strongly angled inward on SM²; a broad oblique black discal lunule; postmedial line wavy, black, oblique to M¹ but angled inward at cell, inwardly oblique to hind margin and strongly angled inward on fold; subterminal line nearly as in *albibasalis*. *Hind wing* slightly paler than in *albibasalis* towards apex and at termen, but the rest of the wing more strongly darkened, the posterior third clothed with short blackish androconial hair. *Underside* of fore wing somewhat bleached-looking, with slight, oblique, distal lunules and obliquely curved postmedial line; these lines are only very weakly indicated above.

♀. Nearly as in *albibasalis* ♀, but with the pale basal patch and subterminal line deeper buff in tone and with rather a stronger postmedial line.

Sumatra: Barison Range, Western slopes, 2500 feet. October to November, 1921 (C., F. & J. Pratt)—2 ♂: Medan, February (Coll. Le Mout)—1 ♀. Also 2 ♀ in the Mjöberg collections from Mt. Dulit, 3000 feet. Coll. Brit. Mus. has an unnamed ♀ from Borneo which probably belongs here.

In neuration of fore wing this species differs from *albibasalis* in the following points:—SC¹ from close to angle of cell; SC² rather more shortly stalked with SC³.SC⁴; R¹ from angle of cell; R² and R³ minutely stalked. ♀ neuration practically as in the ♂.

It is just possible that when more material is available Borneo specimens may be found to differ racially from Sumatra ones.

113. ECHANELLA OBLIQUISTRIGA sp. n.

♂, ♀, 32-37 mm.

♂. Antenna nearly typical but with slightly longer tuft of hair. Palpus with segment 1 greatly produced (at least $1\frac{1}{2}$ diameter of eye), upcurved in front of face; segments 2 and 3 recurved over head and thorax, reaching to near middle of abdomen, both very slightly down-curved, 2 with a small erect tuft of hair at its proximal end and a similar larger tuft at the junction of 2 with 3, the latter anteriorly blackish posteriorly whitish; segment 3 slightly longer than 2, whitish except at distal end (which is clothed with metallic purple scales) and with a tuft of long whitish hair on its inner side. *Fore wing* slightly broader than in *albibasalis*, with very narrow fold at middle of costa and narrow oblique tuft of down-turned hair across disc to just behind angle of cell; coloration much as in *temperata*, but the buff shades a little brighter and more irregular, almost confined to the base of wing and to a broad horizontal bar in distal end of cell and a lunule from $\frac{5}{6}$ costa to termen behind SC⁵, where it meets a broader bar to the lower angle of cell; a slight antemedial bar on costa and weak traces of postmedial and subterminal lines behind the broad bar from termen to cell. *Hind wing* nearly uniform pale fuscous-brown, a little paler towards base, with obsolescent discal spot. *Underside* pale fuscous-brown, paler on proximal third of hind wing, which has a distinct dark spot on anterior half of discocellular 2 and diffused postmedial and subterminal dark bands, both excurved round cell and angled inward of fold; fore wing with large rounded pale spot at about one-third costa.

♀. Similar to the ♀ of *temperata* but with the buff shades rather darker (less contrasted); postmedial line of

fore wing less distinct, except round the cell, where it is broadened and nearly confluent with a broad, cinnamon discal lunule. Hind wing and underside slightly darker than in the ♂, the latter without the pale spot on costa of fore wing.

Mt. Murud, 6000--6500 feet, October—1 ♂, 6 ♀; 6500 feet, November—1 ♀; November—1 ♀, without data (or illegible)—3 ♀.

Differs in neuration both from *albibasalis* and *temperata* in the long stalking of R². R³ of fore wing, which in the ♂ is nearly as in a typical *Hydrillodes* and is quite strong in the ♀; in both sexes SC¹ is given off somewhat earlier; R¹ normal. On account of the palpus and the long stalking of R². R³ this and another (undescribed) species should be regarded as belonging to a distinct section or subgenus of *Echaneila*, but for the present, at least, they may well be regarded as congeneric, the two groups having much in common.

114. HYPENA HERPA Swinh.

Bomolocha herpa Swinh., A.M.N.H. (7) viii, p. 20, 1901, Andamans.

Mt. Murud, 6000--6500 feet, November—1 ♂; November—1 ♀.

In "Moths of India," vol. iii, and in Coll. Brit. Mus., this species is sunk to *iconicalis* Wlkr. (Ceylon). As the genus *Hypena* is at present unworked in the Joicey collection I cannot offer any definite opinion as to whether this sinking is correct; nor is it at all certain whether Sarawak specimens agree perfectly with specimens from Andamans; but as the Mt. Murud specimens seem nearer to *herpa* than to either of the other types placed by Hampson under *iconicalis* it has seemed best to employ that name. Hampson gives India, Ceylon, Burma, Java, Sula and Mysol as localities for *iconicalis*.

115. HYPENA JUGALIS Wlkr.

Hypena jugalis Wlkr., Spec. Lep. Ins., xvi, p. 63, 1858, Sarawak.

Mt. Poi, 200 feet—1 ♀.

This species does not seem to have been recorded from any other locality than Sarawak. Quite interesting.

116. *HYPENA LAESALIS* Wlkr. (?)

Hypena laesalis Wlkr., Spec. Lep. Ins., xvi, p. 62, 1858, Hindostan.

Mt. Murud, 6000--6500 feet, October—1 ♂.

In "Moths of India" this species is sunk to *H. indicatalis* Wlkr. (Ceylon). It is quoted as occurring also in Natal, Japan, Burma, Borneo, Java, Celebes. The genus *Hypena* is in such confusion in the National Collection as well as in the Joicey collection, and there are so many species somewhat of this type that this cannot be regarded as a certain identification, although the above ♂ is in quite good condition.

117. *HYPENA BREVICELLA* sp. n.

♂, 36 mm.

Very nearly agrees with some forms of *H. longipennis* Wlkr., Spec. Lep. Ins., xxxiv, p. 1139, 1865, Darjeeling, but has the distal third of wing from behind R^1 and obliquely from apex to postmedial line dark purple-drab, interrupted by whitish, proximally black-dotted subterminal spots between the veins; proximal two-thirds of wing and costa to apex light buff, shaded with tawny and grained with purple-drab, leaving a slight, pale, oblique postmedial line from R^1 to three-fifths hind margin and a strong, light buff subapical streak defining the dark border; a blackish patch of raised scales in cell at about $3/5$ and a similar, rather larger patch behind M, distally oblique from the patch in cell; slight pale raised hair on discocellular 2, tipped with blackish at lower angle of cell. *Hind wing* and underside almost uniform fuscous-brown.

Mt. Murud, November—1 ♂.

In addition to the points given above, *brevicella* differs from *longipennis* in the shape of fore wing, which has the costa appreciably swelled at about one-third and the termen somewhat less oblique than in *longipennis*. Differs also in the neuration of hind wing, where the cell is distinctly shorter (hardly $3/8$ of wing in *brevicella*; $2/5$ in *longipennis* and the interspaces between R^1 and M^1 (especially between R^3 and M^1) are distinctly larger than the interspace between SC^2 and R^1 ; in specimens of *longipennis* from India, China and Formosa the interspaces are about equal in breadth throughout.

118. *HYPENA* species.

Pah Trap, November—1 ♂.

Too poor to determine. It is not even possible to judge whether this is likely to belong to a new species.

119. *NAARDA NODARIODES* sp. n.

In coloration this species closely resembles a purplish specimen of *Nodaria externalis*, but the abdomen and hind wing are much darker than in that species, much more resembling the thorax and fore wing. *Nodariodes* is also at once distinguishable by the porrect or almost drooping palpus, with the second segment thickened with scales above (broadly at proximal end). *Fore wing* with a fairly distinct, slightly oblique, waved antemedial line from $2/7$ costa to $\frac{1}{3}$ hind margin; a slight, diffused tawny medial shade with a slight pale reniform (anteriorly and posteriorly dark-dotted) on its distal edge; a fine dark postmedial line, a little bent outward from about two-thirds costa to SC^5 , from whence it is minutely dentate and slightly oblique to $\frac{2}{3}$ hind margin, but a little bent outward from R^2 to M^1 ; subterminal line pale, angled inward before R^1 and incurved before hind margin, excurved before and behind the angle. *Hind wing* with obscure medial and postmedial lines and pale subterminal, as on fore wing. *Underside* paler and rather greyer; fore wing with slightly curved postmedial line; hind wing with discal spot (on faint medial shade) and slight, diffused dark postmedial and subterminal shades.

Mt. Poi, 5200 feet—1 ♀. Also a very worn ♀, which may probably belong here, from the same mountain, 4500 feet.

In his "Moths of India," Sir G. Hampson sinks *Naarda* to *Hypena*, but the two genera seem to me abundantly distinct. In *Naarda* the hind wing is much less ample than in *Hypena* and more or less reproduces the pattern of fore wing; in *Hypena* it is very ample and practically unmarked. In *Naarda* the cell of both wings is rather shorter than in typical *Hypena* species. In the ♂, *Naarda* also differs typically in the presence of a moderate-sized fold on costa of fore wing beneath. As already stated in this paper, these costal folds seem a somewhat fundamental structure in the *Hypeninae*; though as *nodariodes* is only known in the ♀, it is of course impossible to speak with certainty as to the presence of the fold.

120. NAARDA species.

Mt. Murud, 6000--6500 feet, November—1 ♀.

Smaller and quite different in shape from *nodariodes*. Perhaps nearer to *symethusalis* Wlkr., but quite too poor for determination.

121. PROLOPHOTA MJÖBERGI sp. n.

♂, 19 mm.

Shape nearly as in *P. trigonifera* Hmps., *Moth Ind.*, vol. iv, p. 547, 1896, Ceylon, but hind wing narrower, more strongly dentate between R^3 and tornus, especially deeply cleft at the fold. Body almost white, the palpus buff with the scaling edged with fuscous. *Wings* strongly tinged with light greyish vinaceous (Ridgway, pl. xxxix), especially on distal half; markings vague, except the large triangular subterminal patch at costa and smaller triangular patch at origin of postmedial line on fore wing and the black discal dots on both wings, which are about as in *trigonifera*; medial line as weak as the antemedial; reniform, orbicular and lines otherwise much as in *trigonifera*, the postmedial on hind wing with black dots on veins R^2 , M^1 , M^2 and SM^2 . *Underside* of fore wing tinged with buff on the proximal half, with greyish vinaceous on distal half; markings weak, about as in *trigonifera*. Hind wing whiter, with moderately well-defined discal spot (with dark spot before it on costa) and curved postmedial line.

Mt. Murud collection, exact data unfortunately lost—1 ♂.

This may possibly belong to a new genus very closely related to *Prolophota*, from which it differs in having the cell of fore wing appreciably longer, the cell of hind wing distinctly shorter, and, especially, in having SC^2 and SC^3 both free from the cell; in *P. trigonifera* SC^2 is well-stalked with SC^3 . SC^4 . By Sir G. Hampson's system this last point must at once constitute a generic division; but, although the division of genera on the subcostals holds good in the majority of *Hypenid* genera, it is certainly not infallible (see *Simplicia* and *Adrapsa*) and as *mjöbergi* agrees so well in most respects with *Prolophota*, I place it provisionally in that genus.

SUPPLEMENT.

As the collections from Mts. Murud, Dulit, Poi and Penrissen had been worked out and largely written up before the collection from Mt. Matang reached us, the six species of *Noctuidae* belonging to that collection are included in this paper as a supplement instead of being incorporated in the text. Although only 6 species (13 specimens) were received from Mt. Matang 4 of the species (10 specimens) are apparently hitherto undescribed. All but one belong to the subfamilies published in Sarawak Museum Journal 3.

ACONTIANAE.

122. CAREA FUSCOSA sp. n.

♂, 34-37 mm.

Very near to *C. moira* Swinh., Ann. Mag. Hist. (6) xii, p. 262, 1893, Selangor, but the fore wing is mikado-brown (Ridgway, pl. xxix), largely suffused, except at termen, with vinaceous russet (i.e. pl. xxviii) and tinged with chocolate, especially near base of wing; postmedial line distinctly bent inward in cell; subterminal hardly excurved at middle. Differs from *moira* chiefly on the hind wing, which in *fuscosa* is almost entirely suffused with fuscous except at costa and on distal third or fourth of wing to about M^2 , the terminal shade being more testaceous (less orange-red) than in *moira*. Wings beneath nearly uniform testaceous, with the exception of the fringe, costa and hind margin of fore wing and the fringe and a very narrow fuscous area at hind margin of hind wing; fore wing a very rich, deep shade of testaceous; both wings with traces of a dark discal lunule.

Mt. Matang (Dr. E. Mjöberg)—7 ♂.

It is just possible that this really a dark mountain race of *moira*; but as more or less normal forms of *moira* are known from Borneo and as the species in this genus are so confusingly close to one another, it has seemed safer to regard *fuscosa* as specifically distinct unless (or until) any evidence is found to the contrary.

123. CAREA OBLIQUIFASCIA sp. n.

♂, 32--36 mm.

Head and thorax predominantly dark Indian red (Ridgway, pl. xxvii); palpus, pectus, abdomen beneath and legs maize yellow (l.c. pl. iv), shaded with deeper buff and irrorated here and there (especially on fore tibia) with Indian red; abdomen above brownish-fuscous, the anal tuft buff. Fore wing ochraceous-salmon (pl. xv) largely suffused with dark Indian red, but the salmon ground-colour persisting at base of hind margin, on the moderately large (irregularly rounded) reniform and in a broad terminal area from costa close to apex to a little beyond middle of hind margin; this latter area is, however, interrupted by the posterior half of post-medial line, by the diffused subterminal shade and by a slight dark shade at termen, which is broadest on its anterior half but arises from a point at apex; lines very diffused and indistinct, the antemedial almost obsolete (lost in the dark shade on this part of wing); the postmedial only distinct behind M, where it almost follows the line of termen; the subterminal shade angled outward behind SC⁵ and inward behind R¹, otherwise more or less straight and erect. *Hind wing* with anterior three-fifths proximally cream-coloured, distally shaded with salmon colour; the posterior two-fifths tinged with brownish-fuscous. *Wings beneath* whitish shaded with light ochraceous-buff (l.c. pl. xv), the anterior half of fore wing and termen of hind wing (except towards tornus) shaded with salmon colour.

Mt. Matang (Dr. E. Mjöberg)—1 ♂. There are also before me, in the Joicey collection, 3 ♂ from Perak, 2000--5000 feet (W. Doherty).

2 ♂ and 1 ♀ (exactly agreeing with the ♂) from Kedah peak, 3200 feet, December, 1915, presented to the Joicey collection by the Raffles Museum, appear somewhat darker on both wings, with the salmon shades a more decided red, but they seem to belong here.

Unfortunately not one of the 7 specimens is in really first-rate condition. The type is rather smaller than the others. Apparently nearest to *C. carneiplagata* Warr., Nov. Zool., xix, p. 41, 1912, Penang, but the figure of this species which is before me has the dark and pale areas of

fore wing differently arranged, the pale shade about the reniform being greatly increased, the termen more solidly darkened than in *obliquifascia*.

124. *MACEDA MANSUETA* Wlkr.

Maceda mansueta Wlkr., Spec. Lep. Ins., xiii, p. 1141, 1857, Sarawak.

1 ♂, 1 ♀.

Known throughout the Indo-Australian region from Ceylon to Queensland and New Guinea.

CATOCALINAE.

125. *LAGOPTERA OCHROBRUNNEA* Strand.

Lagoptera ochrobrunnea Strand, Arch. Nat., 79a 8, p. 71, 1914, Penang.

A distinctively Malayan species, but with a race occurring in New Guinea.

OPHIDERINAE.

126. *ANOMIS EUERES* sp. n.

♂, 39 mm.

Antenna almost simple. Fore wing strongly angled at apex and R^3 , somewhat so at M^1 .

Head and patagia xanthine orange (Ridgway, pl. iii), thorax largely overlaid with mahogany red (l.c. pl. ii); segment 2 of palpus outwardly a mixture of orange and mahogany red, inwardly white, segment 3 fuscous mixed with a little white; pectus and legs whitish, the tarsi with the usual broad fuscous banding, fore femur and tibia tinged in front with pale red; abdomen above fuscous-brown with the crests mahogany, beneath proximally whitish, distally fuscous. Fore wing with the proximal half (except near base) almost entirely overlaid with mahogany red; the distal half duller in tone, the underlying orange appearing to be absent or much paler; an orange patch at base from costa to M and a very sharply defined orange spot in fold half way to the antemedial line, which is blackish, bent outward from two-sevenths costa to SC , erect in cell, strongly angled outward at origin of M^2 and inward to before SM^2 , excurved to fully one-third hind margin; orbicular and reniform silvery-grey, dark-outlined, the former small, round, the

latter erect, proximally incurved, distally strongly angled inward at middle (nearly divided in two), with a dark spot in middle of each division; postmedial line silvery-grey, proximally dark-edged, distally accompanied by a second silvery line as far as M, from three-fifths costa, strongly angled outward at SC¹, oblique from SC⁵ to R², slightly angled out to R³, thence incurved and crenulate to two-thirds hind margin; subterminal silvery-grey, crenulate and incurved from near apex to M¹, where it almost fades out in a diffused dark spot; fringe slightly darker than wing. *Hind wing* brownish-fuscous; the base and fringe somewhat paler. *Underside of fore wing* pale fuscous-brown, of hind wing more buff; costa of fore wing and termen of hind wing irrorated with pale silvery-grey; both wings with slight postmedial line; fore wing also with weak subterminal shade and with the fringe darkened.

Mt. Matang (Dr. E. Mjöberg)—1 ♂. A single ♂ in the Joicey collection from S.W. Sumatra, slopes of Mt. Korintji, 7300 feet, August--September, 1921 (C., F. & J. Pratt) clearly belongs to this species, though the thorax and proximal half of fore wing are rather more orange in tone, less strongly overlaid with mahogany.

HYPENINAE.

127. SIMPLICIA ERIODES sp. n.

♂, 45 mm.

Antenna with shaft normal and very short ciliation.

Head, thorax and fore wing avellaneous (Ridgway, pl. xl), slightly tinged with ochraceous buff, especially on the thorax; hind wing, abdomen above, body and wings beneath somewhat similar in colour, but a little paler and more tinged with fuscous-brown, especially on proximal half of fore wing. *Both wings* above with a rather weak, pale yellow subterminal line, which on the fore wing is very weakly excurved on anterior half and incurved on posterior, on the hind wing it is hardly angled at M² and runs to the termen before torus; the veins slightly streaked with pale yellow before termen. *Fore wing* with a small but very black cell dot, the lines (except subterminal) almost entirely concealed by the short, woolly androconia, which covers the whole wing from base to terminal line.

Mt. Matang (Dr. E. Mjöberg)—1 ♂. There is also before me a single ♂, belonging to the Tring Collection, from Penang, November, 1897 (Curtis), which seems to match almost perfectly with the above.

The woolly androconia on the fore wing makes *eriodes* very distinct from all other *Simplicia* species. In *turpatalis* Wlkr., Spec. Lep. Ins., xvi, p. 174, 1858, Ceylon, the androconia is confined to the proximal half of wing, and *turpatalis* also differs in its knotted antenna, smaller size, rather brighter fore wing and more contrasted hind wing.

ADDENDA.

Between the despatch of the first part of this paper to Sarawak and its publication, the Trustees of the British Museum brought out their new volume of the Lep. Phal., comprising new genera and species left in MSS by Sir George Hampson on his retirement in 1920. Amongst these (p. 477) appears the genus *Parolulis*, in which is now placed *Marapana olivescens*, referred to in Sar. Mus. Journ., iii, p. 238, as congeneric with "*Olulis*" *murudensis* (p. 237). This species therefore will now stand as

PAROLULIS MURUDENSIS A. E. Prout.

In the same work (p. 478) is published the genus *Metaphoenia*, the genus referred to on p. 239 of Sar. Mus. Journ. under *Marapana incongrualis carneipennis* (p. 238). This subspecies therefore becomes,

METAPHOENIA INCONGRUALIS CARNEIPPENNIS A. E. Prout.

In the first division of this paper, specimens of *Carea antennata* Warr. were cited as "Mt. Murud, November, 17." This seems to have been a misreading of November 14. The elevation is correct.

Explanation of Plate 15.

- Fig. 1. *Steuloba robusta*.
 .. 2. " *elegans*.
 .. 3. *Chloethripa leucocephala*.
 .. 4. *Blenina subterminalis*.
 .. 5. *Paradiopa parthenia*.
 .. 6. *Varicosia venata clavifera*.
 .. 7. *Tamba cosmoloma*.
 .. 8. *Elyra (!) eugenes*.
 .. 9. *Raphiscopa serrata*.
 .. 10. *Simplicia brevicosta*.
 .. 11. " *xanthoma*.
 .. 12. *Subsimplicia punctilinea*.
 .. 13. *Miromelia digamma*.
 .. 14. *Bleptinodes tanaocrossa*.
 .. 15. *Bocana incompleta*.
 .. 16. *Adrapsa insolida*.
 .. 17. " *angulilinea*.
 .. 18. *Bertula rostrilinea*.
 .. 19. *Hydrillodes murudensis*.
 .. 20. " *pertruncta*.
 .. 21. *Echaneella obliquistriga*.
 .. 22. *Hypena brevicella*.
 .. 23. *Prolophota mjobergi*.

All are types of ♂ names by A. E. Prout except figs. 1, 3, 4, 5, 6, 7, 16 and 18, which are ♀.

*Explanation of Plate 16.**Sarawak Geometridae (Mjoberg.)*

1. *Brabira emerita* Prout ♂
 11. *Boarmia mesotoechia* Prout ♀
 6. *Ectropis longiscapia* Prout 1♂
 figd. Sar. Mus. Journ. iii (2)
 12. *Prochasma scissivestis* Prout ♂
 7. *Cleora derivata* Prout ♂
 2. *Phthonoloba leptomita* Prout ♀
 13. *Boarmia chloana* Prout ♂
 8. *Cleora praevariegata* Prout ♂
 3. *Bapta juta* Prout ♂
 14. *Dilophodes elegans auribasis*
 Prout ♀
 9. *Cleora aeglophanes* Prout ♂
 4. *Hypochrosis xerophylla* Prout ♂
 15. *Cleora mjobergi* Prout ♂
 5. *Polyscia viridispurca* Prout ♀
 10. *Medasina vinacea* Prout ♂

Geometridae described by L. B. Prout, F.E.S. in the Sarawak Museum Journal Vol. III., Part 2, Article XII.

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5.	<i>Polyscia viridispurca</i>	Prout ♂	p. 197
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